



## ***SOUTH-WEST UNIVERSITY "NEOFIT RILSKI"***

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### **Department: Finance and accounting ECTS Information Package**

### **Major: Finance Master program: Digital Finance (FINTECH)**

### **Education and qualification degree: Master**

#### **Purpose of preparation**

The Master's program in "Digital Finance (FINTECH)" aims to prepare staff to perform management functions in the field of public and corporate finance, for the various levels of the budget and financial system of the Republic of Bulgaria, for the banking system and non-bank financial institutions and fintech companies in particular, the central bank and the financial structures of the European Union, the state institutions responsible for the processes of accumulation, management and spending of public funds.

Graduates of this specialty Digital Finance (FINTECH) can hold the following positions:

- financial manager with additional special competence in the field of digital financial technologies; specialist in financial operations with cryptocurrencies and blockchain technologies, peer-to-peer lending, start-up financing, digital insurance, etc. ; finance specialist in budget organizations in a digital context; credit inspector using digital technologies; a broker or dealer working through digital platforms; a tax inspector familiar with the use of blockchain technologies in the field of taxation; insurance specialist in digital environment; social security specialist using blockchain technologies; customs inspector using digital technologies, etc.

Requirements for the preparation of the Master of Digital Finance

Future masters in "Digital Finance" (FINTECH) are prepared to make management decisions in a rapidly changing dynamic economic environment, formulate concepts and strategies for the development of the financial sector in an environment where the digitalization of financial services is a decisive factor for efficiency and the competitiveness of financial institutions.

The Master of Finance, with specialization in the field of digital finance, applies in an integrated way the obtained general theoretical and specialized economic knowledge in the field of digital finance, applies in an integrated way the received general theoretical and specialized economic knowledge in the field of:

- banking management and marketing, risk management with an emphasis on the use of blockchain technologies and cryptocurrencies;
- financial econometrics and financing of entrepreneurial activity in a digital environment;
- the policy and functions of the central bank in the context of the transition to the widespread use of electronic money and cryptocurrencies by both financial institutions and commercial and central banks,
- the economy of the public sector and the specifics of municipal finances in the context of the application of blockchain technologies and smart contracts for more efficient and faster collection of public revenues and higher transparency of expenditures;
- international public finances, existing programs and policies within the emerging unified European digital financial space.

Graduates of the specialty Finance can practice the following professions and occupy the respective positions according to the National Classification of Positions, 2011:

- 1211 Heads of financial activities; - 1213 Head of Internal Audit; - 1346 Head of a branch of a financial and insurance institution; - 2111 Auditors and accountants; - 2441 Economists; - 2422 Specialist in administrative

policy / accounting /; - 7040 Head of the National Audit Office; - 7043 Head of Analysis and Forecasting; - - Strategic Planning Manager; - 7045 Head of a branch of the National Social Security Institute; - 5056 Project Manager; - 3312 Credit Specialist; - 3311 Securities broker; - 3313 Operational Accountant; - - 3314 Applied specialist statistics; - 3315 Appraiser of property and damages; - 3324 Trade intermediary; - 4311 Accountant; - 3321 Insurance agent; - 3334 Real estate and property management agents; - 3341 Office managers; - 3351 Customs and border inspectors; - 3352 Employees in the state administration, performing tax and financial control; - 3353 Inspector in the state administration, for social assistance and social insurance; - 3359 Applied specialists in the tax administration; - 4211 Bank cashiers and others; - 4214 Debt collectors and related; - 4312 Employees keeping statistical, financial and insurance documents;

The qualification characteristic of the specialty "Digital Finance (FINTECH)" for the educational qualification degree "Master" with professional qualification "Master of Digital Finance" is a basic document that determines the development of the curriculum and study programs. It is in compliance with the Higher Education Act, the Ordinance on the state requirements for acquiring Master's, Bachelor's, Specialist's degrees and the Regulations of SWU "Neofit Rilski".

## STRUCTURE OF CURRICULUM

FIELD OF HIGHER EDUCATION: 3. SOCIAL, ECONOMIC AND LEGAL SCIENCES

PROFESSIONAL DIRECTION: 3.8. ECONOMICS

MAJOR: FINANCE

MASTER PROGRAM: **DIGITAL FINANCE (FINTECH)**

EDUCATION AND QUALIFICATION DEGREE: MASTER

PROFESSIONAL QUALIFICATION: MASTER DIGITAL FINANCE (FINTECH)

FORM OF EDUCATION: REGULAR AND EXTRAMURAL

<b>First year</b>			
<b>First semester</b>	<b>ECTS credits</b>	<b>Second semester</b>	<b>ECTS credits</b>
1. Data base and cloud service management	5.0	1. Digital money and cryptocurency	3.0
2. Macroeconomics implication of financial technology	5.0	2. Venture capital and financing of innovation	3.0
3. Digital insurance	6.0	3. FinTech regulation and control	3.0
4. Project financing	4.0	4. Elective course group III	3.0
5. Market conjection and forecasting of digital markets	4.0	5. Elective course group IV	3.0
6. Elective course group I	3.0	6. Elective course group V	3.0
7. Elective course group II	3.0	State exam or Defense of a Master Thesis	15.0
<b>Elective courses (students choose one course from each group)</b>		<b>Elective courses (students choose one course from each group)</b>	
<b>Elective courses Group I</b>		<b>Elective courses Group III</b>	
1. Virtual banks and digital payment	3.0	1. Digital public administration	2.0
2. Financial services in FinTech company	3.0	2. Consumer protection of digital financial services	2.0
<b>Elective courses Group II</b>		<b>Elective courses Group IV</b>	
1. European policies in the field of digitalization and modernization of the financial sector	3.0	1. Informational security	2.0
2. Blockchain technology	3.0	2. Financial networks	2.0
		<b>Elective courses Group V</b>	
		1. Financial technologies and taxation in an electronic environment	2.0
		2. Financial technology and financial stability	2.0
	<b>Total 30</b>		<b>Total 30</b>

**TOTAL FOR 1 ACADEMIC YEARS: 60 CREDITS**

**DESCRIPTION OF ACADEMIC COURSES**  
**Major: FINANCE**  
**Master program: DIGITAL FINANCE (FINTECH)**  
**Education and qualification degree: Master**

**DATABASE AND CLOUD SERVICES MANAGEMENT**

**ECTS credits: 5**

**Form of assessment: on-going control and exam**

**Semester: 1**

**Methodological guidance:**

**Department: Finance and accounting**

**Faculty of Economics**

**Annotation:**

The aim of the course "Database Management and Cloud Services" is for students to gain theoretical knowledge and practical experience in working with databases and cloud services.

The main task is for students to build an understanding of the models, techniques and architectures of databases and cloud services, as well as their application by providers in providing common business functions such as data storage, computing resources and online messaging.

**Course content:**

Introduction to database management. Definitions and main characteristics of a database and a database management system (DBMS). Data models - basic concepts. Objects and their description. Logical foundations of databases. Data description languages (EOD). Data processing languages (EBS). Physical foundations of databases. Files - basic concepts. Basic search methods. File types. Database management systems. DBMS overview. Microsoft SQL Server, MySQL, Microsoft Access, Oracle. Relational approach. Relational model. Relational structures. Keys. Types of relational languages for database management (ALPHA, QBE, SQL). Data selection. Built-in functions. Data update. Data management in a relational database with the SQL language. Analysis of relational schemes. Normal shapes. Data quality management. Data quality characteristics. Data security management in databases. Nature of the object approach. Basic concepts in the object-oriented approach. NoSQL databases. Data mining. Big Data management. Cloud based databases. Cloud resource management. Cloud services - modeling and simulation tools.

**Training and assessment technology**

The training in the discipline is carried out in the form of lectures. The course ends with an exam. Priority in the training is given to the practical and independent work of the students. The knowledge, skills and competence in the implementation of the current control are assessed, and the results achieved by the set tasks and tests are of great importance.

**MACROECONOMIC IMPLICATIONS OF FINANCIAL TECHNOLOGIES**

**ECTS credits: 5**

**Form of assessment: on-going control and exam**

**Semester: 1**

**Methodological guidance:**

**Department: Finance and accounting**

**Faculty of Economics**

**Annotation:**

The aim of the course "Macroeconomic implications of financial technologies" is for students to gain in-depth knowledge of the opportunities and risks posed by new financial technologies at the micro and macro levels. The emphasis is on the macroeconomic effects of financial technologies and the reaction of central banks to them (changes in monetary policy and regulation of the financial sector).

**Course content:**

Introduction to new financial technologies (FinTech). Impact of FinTech on financial intermediation, efficiency and competition in financial markets. FinTech, contractual risk and transaction costs. Influence of FinTech on financial stability, financial regulation and financial supervision. Economic consequences of FinTech. Macroeconomic effects of online lending. FinTech and the macroeconomic cycle. FinTech and monetary policy.

**Training and assessment technology**

The training in the discipline is carried out in the form of lectures. The course ends with an exam. Priority in the training is given to the practical and independent work of the students. The knowledge, skills and competence in

**Course hours per week: 31 + 0s**

**Type of exam: written**

**Course hours per week: 31 + 0s**

**Type of exam: written**

the implementation of the current control are assessed, and the results achieved by the set tasks and tests are of great importance.

## DIGITAL INSURANCE

**ECTS credits: 6**

**Form of assessment: on-going control and exam**

**Semester: 1**

**Methodological guidance:**

**Department: Finance and accounting**

**Faculty of Economics**

**Annotation:**

The aim of the course "Digital Insurance" is for students to receive in-depth training in the field of digital insurance by forming knowledge about their nature and the changes they cause in the ecosystem of the traditional model of insurance relations.

**Course content:**

Insurance protection in the information age - the essence of digital insurance (InsurTech). Basic principles of realization of insurance relations in digital environment. Changes have been made in the insurer's approach to the scope and implementation of insurance protection through the mediation of digital technologies. InsurTech funding. Insurance intermediation and distribution models. The insurance ecosystem in a digital environment. The sharing or gig economy and insurance. The impact of technologies based on artificial intelligence on the model of insurance relations. (The impact of AI on the future of insurance. Robo-advice and AI). Collection and analysis of insurance data in the implementation model of InsurTech. Regulations of digital technologies in insurance. Personal data and information protection in InsurTech. Digital technologies for increasing the efficiency of implementation of the regulatory and regulatory requirements for carrying out insurance activity - RegTech. Potential and prospects for digital insurance in the context of technological development and the established business model of insurance relations. Cloud services and calculations in the digital insurance model. Startup financing of digital insurance (InsurTech startups) - opportunities, capitalization and positive examples. Business strategies such as IoT strategy and digital insurance - opportunities and challenges for the business model of insurers. Blockchain technologies in digital insurance - essence, possibilities and application. Benefits and risks of the application of blockchain technology in digital insurance. Blockchain technology and its application in the insurance value chain.

**Training and assessment technology**

The training in the discipline is carried out in the form of lectures. The course ends with an exam. Priority in the training is given to the practical and independent work of the students. The knowledge, skills and competence in the implementation of the current control are assessed, and the results achieved by the set tasks and tests are of great importance.

## PROJECT FINANSING

**ECTS credits: 4**

**Form of assessment: on-going control and exam**

**Semester: 1**

**Methodological guidance:**

**Department: Finance and accounting**

**Faculty of Economics**

**Annotation:**

The aim of the course "Project Finance" is for students to gain in-depth knowledge in the field of development, financial management and reporting of projects, getting acquainted with the basic approaches and techniques for applying for national and international funding and opportunities for their application in modern conditions.

**Course content:**

Concepts, principles, mechanisms and approaches needed in project preparation and administration. Introduction to the practical mastery of skills for developing a project for applying for national and international funding. Step-by-step approach. Basic requirements, standards and criteria. Teamwork and partnership. Nature, specifics, components, elements and logic of the project cycle. The "logical framework" approach: programming, identification, formulation, planning, budgeting, implementation, monitoring, evaluation. Nature and specifics of techniques for problem identification and analysis. Preparation of a "problem tree" by applying the method of the same name. Nature and specifics of goal setting in project development and implementation. Preparation of a "goal tree" by applying the method of the same name. Generate ideas for original solutions to identified problems and achieve goals. The "brainstorming" method. Planning of project activities. Eligible activities.

**Course hours per week: 41 + 0s**

**Type of exam: written**

**Course hours per week: 31 + 0s**

**Type of exam: written**

Methodology and organization of project activities. Schedule of project activities. Expected results, monitoring and evaluation of the project. Financial limits of project financing. Eligibility criteria. Methodology for determining the eligible costs - statutory amounts or real market prices. Eligible direct costs: costs of labor and other remuneration, costs of business trips, costs of materials, consumables and other inventories, costs of external services, depreciation costs, other direct costs. Eligible indirect costs declared at a constant rate. Ineligible costs. Project accounting. Development and budgeting of the project. Nature, goals, tasks and stages of project budgeting. Basic requirements to the project budget. Linking the financial resources with the planned activities and the set goals. Efficiency and realism of the budget. Reporting on project financing. Nature and features of the application form. Types of forms. Basic requirements for filling in application forms. Forming a project team and providing support from partner organizations. Criteria for assessing administrative compliance. Eligibility assessment criteria. Criteria for evaluating the quality of the project proposal. Concluding a contract for project financing. Current reporting and financial statements for project financing. European integration and institutions of the European Union. European Union policies. Structural and investment funds of the European Union. National Development Program Bulgaria 2020 - essence, goals, priorities and principles.

#### **Training and assessment technology**

The training in the discipline is carried out in the form of lectures. The course ends with an exam. Priority in the training is given to the practical and independent work of the students. The knowledge, skills and competence in the implementation of the current control are assessed, and the results achieved by the set tasks and tests are of great importance.

### **MARKET CONJECTION AND FORECASTING OF DIGITAL MARKETS**

**ECTS credits: 4**

**Course hours per week: 31 + 0s**

**Form of assessment: on-going control and exam**

**Type of exam: written**

**Semester: 1**

**Methodological guidance:**

**Department: Finance and accounting**

**Faculty of Economics**

**Annotation:**

The course is intended for students of the specialty "Digital finance (FINTECH)" as specialized information on the specifics of conjunctural research and forecasts in the digital financial industry at the international and national level. The aim is to present the students basic specifics, requirements and standards of the market environment, such as a snapshot and future forecast of the state of economic systems in the financial sector and, in particular, the digital finance sector, as well as all internal and external factors that influence and determine its future development.

**Course content:**

Features and factors that determine the situation in digital markets. The place and role of conjunctive research in financial sector. Functions of conjunctural research in international digital finance. Conjunctural forecasts as a tool for managing efficiency in digital finance. Types of digital financial markets at national, regional and international level. Methodology requirements for carrying out conjunctural analyzes and forecasts. Specific difficulties and weaknesses in compiling conjunctural forecasts. Long-term, short-term and operational market-price research. Basics of science-based forecasting. Subjective and objective forecasting methods. Univariate and multivariate forecasting methods. Exponential methods for forecasting in digital finance: Holt's method, Holt-Winters method, Taylor's method, Garcia-Diaz correction. Initialization of the basic values and determination of the smoothing constants in forecasting by exponential smoothing. Primary and secondary sources of information about the current situation in digital finance. Planning and organization of work in conducting conjunctural research. Leading world centers for data mining and market research, forecasts and analysis in digital finance. Leading international private companies and non-profit organizations specializing in conducting market research.

**Training and assessment technology**

The training in the discipline is carried out in the form of lectures. The course ends with an exam. Priority in the training is given to the practical and independent work of the students. The knowledge, skills and competence in the implementation of the current control are assessed, and the results achieved by the set tasks and tests are of serious importance.

### **VIRTUAL BANKS AND DIGITAL PAYMENTS**

**ECTS credits: 3**

**Course hours per week: 21 + 0s**

**Form of assessment: on-going control and exam**

**Type of exam: written**

**Semester: 1**

**Methodological guidance:****Department: Finance and accounting****Faculty of Economics****Anotation**

The aim of the course "Virtual Banks and Digital Payments" is for students to gain in-depth knowledge in the field of digital finance, Internet / online banking, mobile banking, digital payments, working with an electronic wallet.

**Course content:**

Clarification of the essence of the concepts virtual bank, mobile bank and digital payments. Virtual / Digital banks - main characteristics and features. Mobile bank. Virtual banks - advantages and disadvantages. Legal regulation of virtual banks. Internet / Online banking - essence and characteristics. Mobile banking. Practical work with online / internet banking and mobile banking for individuals and legal entities. Digital payments - types and characteristics. Comparative characteristics between digital and physical payments. Mobile payments - nature and characteristics. Electronic wallet - characteristics and features. Channels for digital payments - smartphones, laptops, video banks, etc. The role of digital payments in the development of small and medium business. Banking security innovations in the context of virtual banks. Potential opportunities for development of electronic banking and virtual banks.

**Training and assessment technology**

The training in the discipline is carried out in the form of lectures. The course ends with an exam. Priority in the training is given to the practical and independent work of the students. The knowledge, skills and competence in the implementation of the current control are assessed, and the results achieved by the set tasks and tests are of great importance.

**FINANCIAL SERVICES OF FINTECH COMPANIES****ECTS credits: 3****Course hours per week: 21 + 0s****Form of assessment: on-going control and exam****Type of exam: written****Semester: 1****Methodological guidance:****Department: Finance and accounting****Faculty of Economics****Annotation:**

The aim of the course "Financial Services of FinTech Companies" is for students to gain in-depth knowledge in the field of FinTech companies and in particular, the basic financial services offered by these companies. The course covers theoretical and practical approaches and tasks, problems and specific cases related to the theoretical foundations and methodological approaches in the field of financial services of FinTech companies. The main characteristics and features of FinTech companies are considered in detail; the legislative framework governing the operation of FinTech companies; the advantages and disadvantages of FinTech companies. Special emphasis is placed on the presentation of the main financial services offered by FinTech companies, such as blockchain technology, payments and transactions via mobile devices, electronic payments, data management and others. In addition, an analysis of the development of the FinTech industry in Bulgaria has been made.

**Course content:**

Clarification of the essence of the terms FinTech and FinTech company. Legislative framework governing the operation of FinTech companies. Business relationships between financial companies and FinTech companies. Main advantages and disadvantages of FinTech companies. Bulgarian Fintech companies. Financial services of Fintech companies. Peer-to-peer (P2P) system. Blockchain technology - Fintech services. Payments and transactions via mobile devices - basic Fintech services. Investments and sales made by Fintech companies. Payment services. Savings and lending offered by Fintech companies. Data management and use. Raising capital. Fintech companies - role and impact on the financial sector.

**Training and assessment technology**

The training in the discipline is carried out in the form of lectures. The course ends with an exam. Priority in the training is given to the practical and independent work of the students. The knowledge, skills and competence in the implementation of the current control are assessed, and the results achieved by the set tasks and tests are of great importance.

**EUROPEAN DIGITALIZATION POLICIES  
AND MODERNIZATION OF THE FINANCIAL SECTOR**

**ECTS credits: 3**

**Course hours per week: 21 + 0s**

**Form of assessment: on-going control and exam**

**Type of exam: written**

**Semester: 1**

**Methodological guidance:**

**Department: Finance and accounting**

**Faculty of Economics**

**Annotation:**

The aim of the course "European policies in the field of digitalization and modernization of the financial sector" is for students to gain in-depth knowledge in the field of financial innovation, its benefits and importance for accelerated digitalization, raising capital for start-ups, cyber risk and cybersecurity .

**Course content:**

Financial innovation. Strategies for monitoring and monitoring of financial innovations in Bulgaria. Digital single market for Europe. Digitization of financial services. Digitization and modernization in the banking sector. Digital business transformation. Digital technologies and ethical finance. Legal framework for cryptocurrency trading. Taxation of transactions with cryptocurrencies. Industry 4.0: Digitalization and growth prospects of the Bulgarian economy. Start-up innovative companies in Bulgaria. Cyber risk. Cyber security. Geoblocking. Digital platforms and digital infrastructure.

**Training and assessment technology**

The training in the discipline is carried out in the form of lectures. The course ends with an exam. Priority in the training is given to the practical and independent work of the students. The knowledge, skills and competence in the implementation of the current control are assessed, and the results achieved by the set tasks and tests are of great importance.

## **BLOCKCHAIN TECHNOLOGY**

**ECTS credits: 3**

**Course hours per week: 21 + 0s**

**Form of assessment: on-going control and exam**

**Type of exam: written**

**Semester: 1**

**Methodological guidance:**

**Department: Finance and accounting**

**Faculty of Economics**

**Annotation:**

The aim of the course "Blockchain Technology" is for students to gain in-depth knowledge in the field of blockchain technology, blockchain transactions, their advantages and disadvantages, raising capital for start-up companies, functions and importance of smart contracts, participants in blockchain transactions.

**Course content:**

Genesis of Blockchain technology. Blockchain technology - essence and characteristics. Disadvantages and limitations in the blockchain. Advantages and application of blockchain technology. Importance of blockchain technology for financial markets. Cryptocurrency and cryptocurrencies. Cryptocurrencies as a fundraising mechanism. Initial offering of Initial Coin Offering coins. Legal aspects of cryptocurrency trading. Blockchain cryptography. Decentralized participants in blockchain technology. Blockchain transaction. Public and private blockchains. Distributed Ledger. Digital signatures. Application of smart contracts and blockchain technology.

**Training and assessment technology**

The training in the discipline is carried out in the form of lectures. The course ends with an exam. Priority in the training is given to the practical and independent work of the students. The knowledge, skills and competence in the implementation of the current control are assessed, and the results achieved by the set tasks and tests are of great importance.

## **ELECTRONIC MONEY AND CRYPTOCURRENCIES**

**ECTS credits: 3**

**Course hours per week: 31 + 0s**

**Form of assessment: on-going control and exam**

**Type of exam: written**

**Semester: 2**

**Methodological guidance:**

**Department: Finance and accounting**

**Faculty of Economics**

**Annotation:**



The aim of the course "Electronic money and cryptocurrencies" is for students to gain in-depth knowledge in the field of monetary theory, information and communication features of cryptocurrencies and electronic money, the ability of these new forms of money to perform basic monetary functions, the need and ability to regulate the cryptocurrency market and the future of electronic money and cryptocurrencies in the context of the development of money functions.

**Course content:**

History of money. Basic functions of money. Electronic money. Digital economy, fourth industrial revolution. Features of the modern digital economy. Large databases, machine learning, artificial intelligence. Introduction to cryptography and cryptocurrencies. Bitcoin and cryptocurrency technologies. Bitcoin technique. Accumulation and use of bitcoins. Digging for bitcoins. Consumers, policies and regulation. Digital currencies and the future of financial services. Risk and profitability in cryptocurrency markets. Central banks, innovation and digital currencies.

**Training and assessment technology**

The training in the discipline is carried out in the form of lectures. The course ends with an exam. Priority in the training is given to the practical and independent work of the students. The knowledge, skills and competence in the implementation of the current control are assessed, and the results achieved by the set tasks and tests are of great importance.

## VENTURE CAPITAL AND FINANCING OF INNOVATION

**ECTS credits: 3**

**Course hours per week: 31 + 0s**

**Form of assessment: on-going control and exam**

**Type of exam: written**

**Semester: 2**

**Methodological guidance:**

**Department: Finance and accounting**

**Faculty of Economics**

**Annotation:**

The aim of the lecture course is to present in a balanced mix the main characteristics and determinants of risk financing, as an important tool for financing the innovation activity of SMEs, while focusing on specific EU instruments in this regard analyzed in the context of their investment opportunities and results. from their practical realization.

**Course content:**

Nature, opportunities and organization of venture capital financing. Investors, venture capital funds and portfolio companies - role and interaction in venture capital financing. Influence of venture capital on the real economy. Venture capital funds - nature, meaning and types. Structure and operations of venture capital funds. Evolutionary development of venture capital funds in Europe - dynamics and size of investments. Beneficiaries of venture capital financing in Europe - structure of risky investments and characteristics of venture capital financed companies. The European venture capital market in the context of the globally leading US and Israeli markets. Economic impact of venture capital - innovation, competitiveness and export opportunities. Determinants and conditions for the development of risk financing - capital markets, regulatory environment, risks and profitability. Problems with the supply and demand of venture capital. Regulatory and regulatory framework for venture capital financing in the EU - from Community level to national specifics in the member states. Opportunities for financing with venture capital by the public sector - importance and impact of EU operational programs and national risk financing. Venture capital financing instruments provided in the EU Programs - OP "Competitiveness" - JEREMIE initiative. Venture capital financing instruments provided for in the EU Programs - OP "Innovation and Competitiveness" - Priority Axis 2: Entrepreneurship and SME Growth Capacity - Venture Capital Fund. Instruments for financing venture capital provided for in the EU Programs - FP "Horizon 2020".

**Training and assessment technology**

The training in the discipline is carried out in the form of lectures. The course ends with an exam. Priority in the training is given to the practical and independent work of the students. The knowledge, skills and competence in the implementation of the current control are assessed, and the results achieved by the set tasks and tests are of great importance.

## FINTECH REGULATION AND CONTROL

**ECTS credits: 3**

**Course hours per week: 31 + 0s**

**Form of assessment: on-going control and exam**

**Type of exam: written**

**Semester: 2**

**Methodological guidance:**

**Department: Finance and accounting**

**Faculty of Economics**

**Annotation:**

The aim of the course "Regulation and Supervision in FinTech" is for students to gain in-depth knowledge in the field of supranational regulation and supervision of this new type of financial markets. This course will provide a brief description of existing technologies and business models used by established financial services firms and the regulatory framework that applies to them, before examining how new technologies and new business models are transforming financial services around the world. Different legal reform strategies adopted by regulators in different countries will be evaluated, as well as the business strategies of regulated companies to accelerate their pace of innovation.

**Course content:**

Regulation and supervision in the banking industry. National and international regulation and supervision. RegTech as an ecosystem. Key features: speed, speed, integration, analytics. RegTech Ecosystem: Financial Institutions. RegTech Ecosystem: Start-up. RegTech Ecosystem - regulatory institutions. Artificial intelligence, Smart-regulation and crime detection. Better regulation and new governance. Re-design of advanced financial infrastructure. Rise of intelligent machines. Evidence-based problem solving. "RegTech" is the new FinTech. Faster payments / immediate payments. Compliance and accountability. Bitcoin, blockchain, distribution protocol. Global harmonization of banking regulation. FinTech regulation in the EU. Role of regulators - regulation of cyber risks. Basic principles of FinTech regulation. FinTech regulation in the United States; United Kingdom, China; and India. Fintech and financial crime. Efficiency and effectiveness of regulatory compliance.

**Training and assessment technology**

The training in the discipline is carried out in the form of lectures. The course ends with an exam. Priority in the training is given to the practical and independent work of the students. The knowledge, skills and competence in the implementation of the current control are assessed, and the results achieved by the set tasks and tests are of great importance.

## **DIGITAL PUBLIC ADMINISTRATION**

**ECTS credits: 2**

**Course hours per week: 21 + 0s**

**Form of assessment: on-going control and exam**

**Type of exam: written**

**Semester: 2**

**Methodological guidance:**

**Department: Finance and accounting**

**Faculty of Economics**

**Annotation:**

The course "Digital Public Administration" aims to provide students with comprehensive information about the nature of e-government, a unified model for requesting, payment and provision of e-administrative services and the functionalities of the portal for e-government services in the Republic of Bulgaria. Special attention will be paid to electronic public procurement.

**Course content:**

E-government concept. Digitization of administrative services and delivery models. Electronic document and electronic signature. Strategy for development of e-government in the Republic of Bulgaria. Unified model for ordering, paying and providing electronic administrative services. Good practices: Estonian model of e-government and e-government in Georgia. Electronic services provided by the revenue administration of the Republic of Bulgaria. Electronic services provided by the Commercial Register of the Republic of Bulgaria. Electronic services provided by municipal administrations. Electronic public procurement.

**Training and assessment technology**

The training in the discipline is carried out in the form of lectures. The course ends with an exam. Priority in the training is given to the practical and independent work of the students. The knowledge, skills and competence in the implementation of the current control are assessed, and the results achieved by the set tasks and tests are of great importance.

## **CONSUMER PROTECTION OF DIGITAL FINANCIAL SERVICES**

**ECTS credits: 3**

**Course hours per week: 21 + 0s**

**Form of assessment: on-going control and exam**

**Type of exam: written**

**Semester: 2**

**Methodological guidance:**

**Department: Finance and accounting**

**Faculty of Economics**

**Annotation:**

The course "Consumer protection of digital financial services" aims to acquaint students with the possibilities, rules, ways to provide protection when using "remote" financial services. Therefore, the lectures focus on the development trends of digital financial services and the risks they pose to consumers, regulations and rules to ensure consumer protection, which face these risks. The national and European regulations dealing with the protection of the consumer who uses electronic banking, payment services provided by non-bank financial institutions, as well as by institutions-operators of electronic money are considered. The possibilities for protection when using the services of an investment intermediary in trading with financial instruments on the stock exchange and over-the-counter market are considered. As a current trend, the possibilities for protection of the consumer of blockchain services, which are related to operations with digital currencies, are also considered.

**Course content:**

Risks when using digital financial services. Consumer protection: national and European legislation. Protection of personal data of individuals on the Internet. Protection of users of electronic certification services. Consumer protection of electronic banking services. Consumer protection of electronic payment services. Consumer protection of electronic money services. Consumer protection of blockchain services. Consumer protection of financial intermediary services. Consumer protection when using financial services whose provider is outside the European Union.

**Training and assessment technology**

The training in the discipline is carried out in the form of lectures. The course ends with an exam. Priority in the training is given to the practical and independent work of the students. The knowledge, skills and competence in the implementation of the current control are assessed, and the results achieved by the set tasks and tests are of great importance.

## **INFORMATION SECURITY**

**ECTS credits: 2**

**Form of assessment: on-going control and exam**

**Semester: 2**

**Methodological guidance:**

**Department: Finance and accounting**

**Faculty of Economics**

**Annotation:**

The aim of the course "Information Security" is for students to gain in-depth knowledge in the fields of information theory, information process management, building, managing and maintaining a sustainable system of financial information security. To this end, they are familiar with the procedures for analyzing the financial information system, identifying threats, vulnerabilities and risks to financial information and building an effective information security system.

**Course content:**

General concepts of the course. Concepts and terms. Current state of information security in the financial sphere. General legal and administrative framework for information security. Information. System-process approach to information security. Information security threats and vulnerabilities in the information security system. Risks to the security of financial information. Building a system for information security in the financial sphere. Management of the continuity of financial activity.

**Training and assessment technology**

The training in the discipline is carried out in the form of lectures. The course ends with an exam. Priority in the training is given to the practical and independent work of the students. The knowledge, skills and competence in the implementation of the current control are assessed, and the results achieved by the set tasks and tests are of great importance.

## **FINANCIAL NETWORKS**

**ECTS credits: 2**

**Form of assessment: on-going control and exam**

**Semester: 2**

**Methodological guidance:**

**Department: Finance and accounting**

**Course hours per week: 21 + 0s**

**Type of exam: written**

**Course hours per week: 21 + 0s**

**Type of exam: written**

## **Faculty of Economics**

### **Annotation:**

The aim of the course "Financial Networks" is for students to gain in-depth knowledge in the field of network analysis, networking through graphs, web networks, financial contagions, system risk, databases and application of network models when working with arrays of information, as and assess the social consequences of network traffic.

### **Course content:**

Financial security network. Graphs as basic network models. Game theory and Nash equilibrium. Network traffic modeling through Game Theory. Theoretical aspects in the development of information networks. Financial contagion and network models. Global Network for Financial Innovation. Database network model. Web network structure. Dependence between financial, social networks and risk. Factors influencing the formation of risk sharing networks. Link Analysis and web search. Electronic money and network effects. FIN-NET Financial Dispute Resolution Network. Network diffusion.

### **Training and assessment technology**

The training in the discipline is carried out in the form of lectures. The course ends with an exam. Priority in the training is given to the practical and independent work of the students. The knowledge, skills and competence in the implementation of the current control are assessed, and the results achieved by the set tasks and tests are of great importance.

## **FINANCIAL TECHNOLOGIES AND TAXATION IN THE ELECTRONIC ENVIRONMENT**

**ECTS credits: 2**

**Course hours per week: 21 + 0s**

**Form of assessment: on-going control and exam**

**Type of exam: written**

**Semester: 2**

**Methodological guidance:**

**Department: Finance and accounting**

**Faculty of Economics**

### **Annotation:**

The aim of the course "Financial technologies and taxation in an electronic environment" is for students to gain in-depth knowledge in the field of taxes, the organization of taxation and the opportunities provided for calculation and payment of debts to the state budget by digital means. ARC for individuals and Electronic signature-QES for legal entities.

### **Course content:**

Consolidated state budget. Taxes. Direct property taxes. Direct income taxes. Indirect taxes. Excise duties. Customs and customs policy. Value added tax - VAT. Non-tax revenues in the state budget. Tax system - structure and types. Electronic portal of the National Revenue Agency. Payment of taxes with electronic signature - QES. Payment of taxes with personal identification code - ARC.

### **Training and assessment technology**

The training in the discipline is carried out in the form of lectures. The course ends with an exam. Priority in the training is given to the practical and independent work of the students. The knowledge, skills and competence in the implementation of the current control are assessed, and the results achieved by the set tasks and tests are of great importance.

## **FINANCIAL TECHNOLOGIES AND FINANCIAL STABILITY**

**ECTS credits: 2**

**Course hours per week: 21 + 0s**

**Form of assessment: on-going control and exam**

**Type of exam: written**

**Semester: 2**

**Methodological guidance:**

**Department: Finance and accounting**

**Faculty of Economics**

### **Annotation:**

The aim of the course "Financial Technologies and Financial Stability" is for students to gain in-depth knowledge in the field of financial infrastructures, financial technologies and the legal framework, Internet finance, electronic payment systems, financial awareness, financial innovation and structural products.

### **Course content:**

Legal framework. Electronic money. Payment systems. Payment supervision. Electronic payment systems. Supervision of payment system operators. Supervision of payment service providers and electronic money issuers. Cryptocurrency technologies. Internet finance. Financial innovation.

**Training and assessment technology**

The training in the discipline is carried out in the form of lectures. The course ends with an exam. Priority in the training is given to the practical and independent work of the students. The knowledge, skills and competence in the implementation of the current control are assessed, and the results achieved by the set tasks and tests are of great importance.